THE MIKE ALKIN SHOW

TALKING STOCKS OVER A BEER

Ep. 18: Crypto Speculation, Value Creation, and the Newest New Thing

with guest Barry Cohen

Announcer: Free and clear of the chatter from Wall Street, you're listening to Talking Stocks Over Beer, hosted by hedge fund veteran and newsletter writer Mike Alkin, who helps ordinary investors level the playing field against the pros by bringing you market insights and interviews with corporate executives and institutional investors. Mike sifts through all the noise of mainstream financial media and Wall Street to help you focus on what really matters in the markets. Now, here is your host Mike Alkin.

Mike Alkin: Welcome to the podcast, Tuesday, June 12th, 2018. Hope you had a nice weekend. Mine is in full swing now in the summer lacrosse program with my son. I don't know if you have children who play lacrosse, but it's similar to, I guess, soccer in the sense that they have a lot of tournaments. During the summer, it typically is up until the middle of August or late July, I should say. It's Saturday and Sunday, the travel team plays a tournament. It could be within a few miles of the house, or it could be a couple states over. I have always maintained that sports parents are out of their mind, and they're nuts, and I will not be one of them. While I played three sports growing up, and I played in college, I absolutely have never put any type of pressure on my son to play.

Mike Alkin: I've had games on. They're in the background as a kid when he was growing up. For a while there, he was a surfer dude. He was a skateboard dude. He did all that stuff. Then somewhere around eight, nine years old, just this sports thing kicked in. He's a big boy. I mean, I'm six foot, so I'm not that tall, but six, I guess, is a little bit more an average, but they project him out to be somewhere about 6'2" to 6'3". He's lean and he's in good shape, and big for his grade. He plays football. He plays basketball. He plays lacrosse, but football and lacrosse were his real loves, and he just has started to really kick in playing in the last few years lacrosse. He's grown, and started to thrive in lacrosse. He's a defender.

Mike Alkin: He plays defense. Last year, there were some goalie issues, and he wanted to … He said, "Dad, I'll be the backup goalie. I'm happy to." He starts on defense, but he said, "I'm happy to play goalie." I thought, "I don't know if you've ever seen a lacrosse ball or felt

one, or seen a shot, and the lack of equipment that they wear." I thought, "You gotta be kidding me." He wound up ... Last year, he was the starting defender, and when the main goalie needed a rest, he played goalie. He did okay. He was okay. There's a lot of technique he had to learn, but then the starting goalie on the travel team went to another travel team. He said, "You know what, I really liked it. I'm gonna play." I said, "Whatever you want, buddy." Here he is. He starts at goal.

Mike Alkin: I gotta tell you, being the parent of the goalie, win, loss doesn't matter. Who cares? As long as they have fun, right? I say that. I mean, we're pretty fortunate, or our town has a good lacrosse program. We just won the state high school championship this weekend, but a lot of the parents, they get the joke. They take it for what it's worth. They don't prep their kids from 10 years old to go play in college. Many of the dads who coach happen to play at the division in lacrosse level in the town, but it is what it is. Nobody is living vicariously through their kids, but I sat on the lacrosse field. I watched him play. They're all-day events. Sometimes, my wife and daughter will come. For those six or seven weeks, we do it.

Mike Alkin: We travel, and we have fun as a family. My daughter is a trooper, but yesterday was really the first time, where this weekend, they played a tournament which she actually won, and he was ... I got a chance to stand behind the goal during the games group for whatever reason, this field accommodated that. He's out of his mind. These 12, 13-year-olds, I mean, these kids shoot rockets, and I literally was feeling it. Now, I'm no stranger to contact sports, but this was nuts. You're standing a goal unprotected with equipment just a little shoulder pad, just a chest protector, and they are shooting from 15-feet away. These kids are firing rockets, and at this age now, they're really getting up there.

Mike Alkin: My wife was thinking about walking behind. I thought there's no way if she sees this, because from the side, you can't really tell. As a parent siting there, it was pretty frightening, and he got drilled a few times off the kneecap and everything, and he laughs it off. I will absolutely say he's a much tougher kid than I am. That was part of my weekend, Subway series, Mets-Yankees. None of you care because who cares? It's Mets and Yankees, but the Mets finally won a game after losing nine straight. I just actually recovered this week my trip, so I took the red eye back from the nuclear fuel buyers conference. That's something I finally have realized in my life that I'm at the age where I can't do the red eye anymore.

Mike Alkin: I mean, it was my badge of honor throughout my career. Go to a city, and I'd finish my meetings whatever time, I'd have dinner. I head to the airport. Take the 10 or 11:00 flight from the West Coast, get back home, land 6:0 AM. Then just get at it. Go right into the office, and do it. That was just part of it, maybe catch a couple of hours of shuteye on the plane, and the theory was I didn't want to be in the air while the markets are open. That's just what you did. The last few times I've done it from Vancouver, California, it's wiped me out. This particular trip, of course, and I am a magnate for this. You can't make it up. I get on the plane. By the way, I fly coach. I mean, God knows how many air miles, but I'm always happy there. I get premium economy.

Mike Alkin: I mean, if I'm going way overseas, I'll get business class, but if I'm domestic, I'm premium economy. I'm totally fine. I'm happy. I'm not one of these guys going up to the counter checking my miles and upgrading all the time, but just … I'm pretty low maintenance. I did this, but of course as the baby magnate I'm at under Red Eye, of course, I have the child sitting behind me and kicking the chair, and doing the whole thing. I land at, what, like 5:30 in New York. I got my card, drove from Kennedy airport to my house, said to my wife, "I'm just gonna grab an hour." I woke up at noon. I've finally realized, "What am I doing?" It's that time where I now have to admit to myself that the body, the mind is writing checks the body can't cash. It is now going to a meeting, overstay the night, and take an early flight in the morning, because that first morning in the market, I'm not looking anyway from sleeping.

Mike Alkin: These things that you learn as you get older … This week, I learned a little bit about my own self that I'm not being a plane warrior anymore. I realized that watching my son in potential peril in the goal gave me what my Italian heritage would call agita, heartache, heartburn the whole weekend. Anyway, we are going to have an interesting guest here. I had last week on, I had Mark Yusko. Mark, I met a year or so ago in Dallas as he is a friend of a former boss of mine who is also a good friend of mine, Reid Walker, who run a very successful hedge fund called Walker Smith Capital for a number of years. I met Mark down at a conference. We had a nice conversation, and we're talking uranium at that time, but Mark is a former chief investment officer of the University of the North Carolina endowment.

Mike Alkin: He's a capital allocator, so he grew up in the business. He was the number two guy at Notre Dame's foundation, and number one at North Carolina. Then in '04, he started his own firm called Morgan Creek. He had the good fortune and foresight to allocate capital to some of the best hedge fund managers on the planet in history. He's gotten to know them very well. He's seen all types of investment styles. He's seen value investing, growth investing, GARP investing, which is growth at a reasonable price. He's seen good managers and bad managers. When you're an allocator like Mark, you're out meeting other managers. Your job is to judge who's going to be good. You're judging talent, and that's not an easy thing to do, but you get to see ever different type of investment style. There's equity investment.

Mike Alkin: There's debt investing. There's credit investing. There is distress investing. There is farm investing, and we're doing markets. He's seen at all. I knew that Mark was has been really focused on the cryptocurrency space, and he is partnered up with another firm, and really excited about it. If you're on Twitter, he's Mark Yusko. I'm at footnotes first. He talks a lot about blockchain and bitcoin. It's interesting because Mark is about ... I'm 53. Mark's 55, I think, he said on the phone the other day. He feels reinvigorated too, because you're around all these young people in the cryptocurrency space. He has the ability to look out and see this. As he said on the podcast, to him, this is the most exciting investment opportunity he's ever seen.

Mike Alkin: Now, conversely, I have avoided the blockchain. I have avoided bitcoin, other than just peripherally. You have to know as an investor what your strengths and weaknesses are. I know for me that I am not a good growth investor. I'm not a good big picture visionary. You'll learn that you invest with who you are. I always say, "Invest with what makes you comfortable." Those big open-ended opportunities, I've never been good at. It took me a long time to not just short those, and understand that you can get run over. If you may not see the big vision, the big picture, or I might be skeptical of it, but it doesn't mean other people are. While I might not be good at owning those type of stocks, I needed to learn early in my career that just because I don't like it doesn't mean it's a good short that you have to look at the big picture, but for me, the big picture open-ended stuff which is never comfortable.

Mike Alkin: I'm more of a buy the really ugly duckling. Go to the trash pile and sift through, and see if there's anything here that people have overlooked. That's how I find my long ideas. That's the beauty about investing. You could look anywhere and everywhere, and

there's no one right way, so the big picture open-ended growth guys, they can make a lot of money by beating up the stress ugly as heck stocks. If you buy them at the right time, and you understand what you're looking at, that can also present a really nice investment opportunity. There's no one right way to investors, all different ways, but when it comes to the blockchain, it comes to bitcoin, I paid enough attention just to get a sense for what it is, but I just know myself, and I know that nearly stages of an asset class, I'm likely not going to see the vision.

Mike Alkin: If I do, I'm going to come up with 20 reasons why it can't work. It's just the nature of who I am. I'm not an old fuddy-duddy stuck in my ways, but I'm comfortable with my investment style. I know what I like to short, and in the long side, I know what I like to look at. For those of you who followed my work on Uranium, it's a seven-year bear market, and it's beaten up, and everyone hates it. For me, when I really start focusing on it a few years ago, that was exciting, that to me, I wanted to see if there was value there. Mark and I talked. We talked about blockchain. We talked about bitcoin, and really, he enthused me, no not enthused me to the point where I was going to say, "Okay, I'm gonna focus on this," because that's not what I do, right, but where I wanted to get smart and to be able to have a conversation.

Mike Alkin: I thought, "Mark reminds me of my friend, Barry Cohen." Barry and I were partners at a firm called Not Partners for a number of years, a good-sized hedge fund. Barry spent his entire career in the financial banking space, corporate banks, insurance company, asset managers, and Fintech it's called, financial technology. Barry, I guess, retired from the hedge fund business a couple years ago, and really, he and I are very close friends. We talk a lot, and he was really excited about blockchain and all that technology. Barry is my age. I mean, you're a two younger. I thought after talking to Mark, I said, "You know, I'm gonna get Barry on, and we're gonna have a conversation." Essentially, I'm coming at it just like people who might be listening to the podcast is I know nothing.

Mike Alkin: Get me smart, because it seems like a very important asset class. Without further ado, I'm gonna bring on Barry, and we're gonna talk cryptocurrencies. Barry Cohen, welcome to the podcast.

Barry Cohen: Mike, thanks for having me on again. I really appreciate it.

Mike Alkin: You bet. It's funny. I had you on not too long ago, but I said, "I gotta get you back, because I had Mark Yusko on last week." I was out in Monterey at the Nuclear Fuel Buyers Conference. I was sitting at my hotel room, and I had a call with my Mark. It was great. We talked about a lot of stuff, like reminiscing about the growth of hedge funds. He's about our age, and we all grew up in the hedge fund industry the same time. Mark is a really very, very active in the crypto space. It got me thinking that ... You know me. I'm curmudgeonly deep value, skeptic, and a contrarian, and crypto, blockchain, bitcoin, all that stuff, not my strength, but I keep seeing some really, really smart people just keep wanting to learn more about it.

Mike Alkin: I said, "You know, after speaking to Mark, I've got to get Barry on, because there is a lot of talk." Everyone knows bitcoin, and people may know Ethereum, but as you and I have talked over the last year, and during our normal conversations as friends, I said, "What's going on?" you tell me what's going on. There is a lot going on in this space. I realize I know very little of it. I thought, "You know what, there is so much noise and buzz about cryptos that maybe we should really just dig in here, and I should get smart." I thought, "If I'm gonna try and get smart on it, why not let the listeners get smart with me, right along with me." We're gonna talk cryptos, but before we do, why don't you tell our listeners, tell them your background.

Mike Alkin: Where did you come from? How did you get here?

Barry Cohen: Well, I have to give a shout out to my mom who started it all. My rise to Wall Street was not directly through investment banking or asset management. Believe it or not, I actually started off in the back office, in the plumbing if you will, worked my way up actually, worked my way through the back office into sales, believe it or not. My sales manager, I can remember him, super nice guy, really, really great guy. He asked me to come into his office one day, and he told me that I was too smart to be in sales, and I should think about alternative. I wasn't firing that he liked me with what I'm doing with my job. I think, he actually gave me some of the soundest advice that anybody has to at that moment he's given me, which is, "There's a place in the universe for all of us. You've just gotta find it."

Barry Cohen: I took his advice actually, and I applied it myself. Ultimately, I ended up working for a very well-known mutual fund complex, and slowly worked my way up through the ranks, ultimately to be in the

hedge fund community, which exposed me to all sorts of interesting things including private transactions and the global markets and going long and short. During that time, I covered technology, some healthcare. The bulk of my career has been as some of your listeners may know covering the global financial services space. The global financial services space in a nutshell is the word global, I think, stand on its own, but with banks, and brokers, and insurance companies, and asset managers, and what's known specialty lenders, so people who have specialized in lending let's say for mortgages or credits, and things like that.

Barry Cohen: Then financial technology or what's known euphemistically as fintech as well, and when I first started, it was a very small group, but now, the number of companies that are out there that fall into that category are much larger. In 30 seconds, that's where I've come from, and where I found myself here.

Mike Alkin: Talk about the type of firms that you work at and just the difference. You started at a mutual fund, and then you morphed into the hedge fund industry. Talk about that transition and your evolution there.

Barry Cohen: I really started off on my first major Wall Street firm working for Fred Alger, which was already by that time a fairly story growth oriented mutual fund company. It's still around, but that's where I first got my chops in technology and financial services. I crossed above, so then I transitioned to the hedge fund community, and a lot of people like to imagine how glamorous it is, but it's a 24-hour day job, seven days a week. There's a lot of risk that you take in your career working at a hedge fund versus a mutual fund. What you find out is the people who love working in that environment are people who just love being able to invest.

Mike Alkin: Barry, explain for listeners. You say there is more risk being a hedge fund person than a mutual fund. Why is that?

Barry Cohen: Well, the model isn't really stable, right? I mean, first of all, everybody assumed that if you're working at a hedge fund, it's like this 10 billion, 20 billion-dollar Goliath, but the truth to the matter is the large chunk of the industry is probably got less than a billion dollars on the management, and so it doesn't really take all that much in terms of having one bad year, which can happen to anybody to find yourself having a lot what's known as redemption. Redemption is a fancy word that the industry uses for when your

customers take their money away from them. On top of it, you're really competing. It's a very, very difficult business. Let me set up a simple explanation as to why it's a really super difficult business.

Barry Cohen: If you're a hedge fund, you are telling your customers that you're gonna do two things for that, that you're gonna lower the risk that they're assuming with their investments, and at the same time, you're gonna earn them a very high rate of return. Now, on the phase of it, right off the bat, that's an extraordinarily difficult proposition. Let's take what a typical hedge fund looks like. In a typical hedge fund, forget the math of how you get there. A typical hedge fund will have about, or inequities, will have about 40% exposure to the market, which means that if you invested let's say in the S&P 500 index fund, and you put $1,000 in, your exposure to the S&P 500 is 100%. You own $1,000 of the S&P 500 index.

Barry Cohen: A hedge fund would probably only have $400 out of that $1,000 example exposed directly to the market. The way they do that is to either holding cash or having sorts on the other side of their investments. It's a very, very, very, very difficult business. You're one of the best short sellers I know in the market. You're incredibly good at it both in terms of the art and science. I don't think anybody that I know would say that short selling is a good business. We can get them to all the nuances about shorting and how you do it, and the mechanics of it, but I'm just gonna make it really simple. Let's take two investments. Let's say your long IBM, or let's say and another person's short IBM at the same day, $100 of share.

Barry Cohen: The guy who's long IBM, he can hold that stock forever, and he can compound, and he can compound year after year after year after year. Theoretically, there's no cap to how much money he could make or she could make, right? They owned that stock for a decade, and IBM's earnings grow 20% a year, and Wall Street rewards it with Ann astronomical multiple. They could make 1000%, 2000% by whatever the number is. That's the power of compounding. If you're short that stock, forget that you're wrong in the first portion of my example. Forget that you're wrong. Let's say that you are right. Let's say somebody finds out, every product at IBM ever made this fatally flawed, and the stock grows from $100 to zero. Let's say that it happens overnight.

Barry Cohen: The most you can make is 100%. That's the most you can make. On your best day, you can only hope for 100% rate of return. When you look at those two styles of investment, which one do you think over

time is easier and will give you the higher rates of return? I know which one I would choose. I'm pretty sure your listeners after this example would probably choose the same one.

Mike Alkin: Then that begs the question, "So then, why do hedge funds exist? Why do people put money in them?" I would argue it takes a 2008 year of down 39% or 40% in the market, and people need to then be up over 60% to make up their losses when the hedge funds dramatically outperformed. What role do hedge funds serve?

Barry Cohen: Well, I mean, you basically talked about one of them here, so you might think about that as the parachute model, that when the world ends, you're invested in things that will protect you, and even theoretically can make money when the world ends, right?

Mike Alkin: Yup.

Barry Cohen: If you're a long S&P 500 or at some low cost ETFs, unless you are willing to sell and time it perfectly or somewhat perfectly, you're just long for the ride. That's the flip side to the compounding views. You did all the virtues of the compounding, but on the other side of the coin, in order to do that, you're in it to win it.

Mike Alkin: Yeah.

Barry Cohen: You did speak about what you might describe as your parachute. When you get bear markets, their hedge funds, that's when you really see the value. I would argue there's something else though. For example, let's take an imaginary hedge fund that we've down at your 25%. In order for all the partners or managers and portfolio managers that may be at that fund to get paid, they have to earn back every single dollar that they lost that year. Then they have to make money on top of that in order to actually get paid. If you're a mutual fund manager, and you're down 25% because the market's own or whatever it is, you're still getting paid. Now, maybe you're not getting paid as much, but you're still getting paid.

Barry Cohen: A lot of people forget just how tied hedge fund manager's incentive compensation is to the performance for their customers.

Mike Alkin: When you say pay, there is two ways a hedge manager gets paid. Even in an up or down, the hedge manager is getting their management fee, which could be 1%, 1.5% or something. It used to be 1% forever, and then it went up topic 2%, and now

fee compression has it brought down. Let's say 1.25%, 1.5%, but when you're saying paid, it's the incentive, it's the incentive compensation, which is a portion of the profits that are made. That's where most hedge fund managers and hedge funds will make the bulk of their ... it is called performance piece. That's where they'll make the bulk of their income.

Mike Alkin: What you're saying is if they're down, that performance fee doesn't get made up, so using your example earlier, you're taking 40% of the market risk in that one example, but that 70% of the return, hedge fund investors who invest in hedge funds understand that they're paying an incentive performance fee. That performance fee which is what the hedge funds are in the business for goes away when they're down, and they have to make up those losses.

Barry Cohen: Yeah, that's 100% right. Again, I would say to you that a large chunk of the industry is in $10 billion hedge fund.

Mike Alkin: That's right.

Barry Cohen: A lot of parts of the industry, that annual 1% more or less trends on the lengths, right?

Mike Alkin: Yup.

Barry Cohen: For some of the larger funds, it might be a cushion or even a profit center, but for the large, large chunk of the industry, that's how they turn on their computers, and pay their secretaries and their rent, and eat. I don't want the listeners to think that I'm out here proselytizing for the hedge fund community. I'm not here to sing their praises, but I also think that oftentimes, people don't realize just a, how difficult the business is. B, there's a lot of people in it who are in it because they just love what they do. They get a lot of professional pride and even excitement out of being able to figure out how to make money by both shorting stocks as well as going long on them, and that there are balancing points within the industry itself that help to align or incentivize managers with their customers, which isn't really the truth in a great deal of other portions of the asset management business.

Mike Alkin: Now, you spend a career looking at financial technology, and global financial services. I remember when we would sit down, we were partners for a number of years, one of the five or six partners at the

firm. When we were taught fintech, financial technology, I think, it's pretty funny, because I would glaze over. It was complicated. We would talk about payment processors. You and I would sit in each other's office. You'd ask me what I was looking at. I'd ask you, and it was complicated stuff. You know me. I am a deep value guy. I am not a growth guy. I am not visionary, and you have the ability to look at bigger picture stuff. The last couple of years, I know that when you retired from the hedge fund industry, you were sitting down in Florida, and enjoying a little bit of time, and really started to pay attention to the blockchain, to cryptocurrencies.

Mike Alkin: Mark was saying on the phone last week, Mark Yusko, it's the most exciting investment opportunity he's ever seen. I have talked to you on and off about it, and I listened. Sometimes, I half listened because it starts to get a little complicated for me, but I'm devoting myself to these next 45 minutes to really getting smart, but if I were to summarize what I know so far, and tell me if I'm wrong, but the investors know about bitcoin. They may know about Ethereum and maybe one or two others. People originally think that this is ... The debate becomes, "Is it a store of value? Will it be placed fee odd currencies it being bitcoin, but underlying this technology, bitcoin, this digital currency is a technology called blockchain, which is a distributed network?"

Mike Alkin: It's no one central authority. People like that, because there's no big brother, but this whole blockchain technology evolution creates endless possibilities. I'm gonna have you talk about that in a minute, but it's also created a lot of excitement, investor excitement, and the structure in which these can raise money has created a land rush, a land grab for people trying to get into the business, and trying to raise money. Normally, as you and I know it, traditionally, that's called venture capital. Venture capital is open to accredited investors only. They have to meet a certain criteria, and they're venture capital funds. It's hard to find them and get into them for ordinary investors, for retail investors to getting on the early stages of stuff.

Mike Alkin: Now that bitcoin and all these other crypto currencies, I think, there are 1600 of them that have come along. People get excited because it's a way for them to get access to new early stuff. Well, what are the things that I know from being a professional investor, knowing venture capital is wildly risky. Most of it doesn't work, and the ones that do work with 100 baggers, and it makes up for all the others, but it's the wild west a little bit if you will, but you have professional

funds being run by only accredited investors where sophisticated investors could get involved, but now, you have the ability to raise money pretty easily. There's been a ton of money raised, which unfortunately, you and I both know this. When there's easy money to be had, bad actors enter the space.

Mike Alkin: I want to first touch upon exactly what this whole phenomenon is with blockchain. Then let's talk about the risks associated with it, but explain to me the genesis of your interest in it, and why you to interested. You know financial technology. What drove all this?

Barry Cohen: Wow. You always ask great questions.

Mike Alkin: By the way, that is the first time I've ever spoken more than you in our lives. I've just [inaudible 00:34:14].

Barry Cohen: Actually, I was timing it. I was hoping you'd go a little further.

Mike Alkin: Normally, I'm cutting you off, but I got a little longer than you.

Barry Cohen: That's okay. I love it. I love it. I listen to your podcast assiduously. Of course, Mark Yusko's story, and I listened to what he had to say. You and I talked about this offline a lot. I would say that I agree with everything that he had to say about it. Having actually gone through, I don't know, like three bear markets, the internet coming on to the scene, but frankly, actually, the personal computer coming onto the scene, the internet coming onto the scene, the person computer bubble burst thing, the internet bubble bursting, and then the internet coming back. This particular evolution, some might even argue revolution, I believe has all the possibilities of being the most interesting thing that I've ever seen in 25 years.

Barry Cohen: I don't think anything comes close, because if you're an internet company, and maybe you're gonna sell books, and you do a bang of job doing it, then you become a global retailer that basically is an industrial-sized warehouse. You trade that a trillion dollars, and the guy who owns you is worth 90 billion or something like that. That's amazing story, and they don't come across over time, but it doesn't have a lot of things in it that the blockchain does. For example, if you think about it, the key components for what made it Amazon work, nobody ever pays for it, right, so when you log on to the internet, and you look at that little https thing, nobody makes any money from that, but without it, it just wouldn't work. Nobody pays for DNS at least outwardly.

Barry Cohen: The almost backbone piece of the software that makes Amazon what Amazon is in the wider sense of the word, there's no economics there, or little economics there, whereas when you think about blockchain, it trends it all on its hand in the line, so all the things that make it work, so whether it's bitcoin, or Ethereum, or Stellar, or Vcash, or any of them. They're more like what's known as protocols. For listeners who aren't familiar with the word protocol, the easiest way to internalize what that word means is think about the way you would think like an operating system. If you have an Apple, you'd have the Apple operating system. If it was Microsoft, you'd have the Microsoft OS, operating system.

Barry Cohen: It's the underlying technology in that particular type of software that lets everything else that you have on your computer run. If you have a PC, and you're running Microsoft, and you're running Microsoft's operating system, on top of that is where your word processor relies. On top of that, that's where your email resides. On top of that, that's where your web browsing whether it's Google or something else resides on them. That's the way it works. In the blockchain world, the operating systems are like Ethereum, more bitcoin, or any of those, those that's known as protocols, and all the other ones that you hear about. I don't know how familiar any of your listeners are with any [inaudible 00:38:04] one or two, whether it's filecoin or fun fare, or any ones along those lines.

Barry Cohen: Those are what's known as application, and applications in blockchain is very similar to what I just described with your word processor. Your word processor is an application that fits on your Microsoft, and really used to sit on a system or a IPFS or Stellar, or any of the other ones that are out there. Each one is carving out economics in a few very, very, very different and profoundly sometimes a different way. I find that just right off the bat very, very exciting, so technology is incredibly exciting, and it's constantly evolving. When people talk about bitcoin, my guess is a lot of listeners, not all of them, but a lot of listeners are just, "Yeah, it's bitcoin. It's out there. They came out like a decade ago, and it's bitcoin."

Barry Cohen: They'll sit around the bar, and they'll say, "Yeah, you know, the reason why it's gonna be worth a ton of money is there's only 21 million of these things, and everybody is gonna wanna own one, and this is only a limited amount, the price is gonna go up," which is fine. That's a very simple way of saying about it. What they don't realize is that every single day of every single week of every single month, there's a bunch of developers that are working on

improving the overall functionality of bitcoin. It's not a finished product. Ethereum is not a finished product. It will go through iteration after iteration after change after development. Failure fits, hatch iteration, and on and on and on. This will keep on going on for a long time.

Barry Cohen: Who 10 years from now is on top of the leader board? I'm honestly saying number one, so let's say top 10. They may be very different frankly than who is on top of the leader today. I'm willing to bet if I could speak to this about like the financial services industry, if you went back 20 years ago and you look at the largest banks, some of the largest brokers, some of the largest insurance companies out there, a lot of those companies, they don't even exist anymore. If that's true in financial services, which tends not to get blown out of the water all that easily, because they regulate, and their real capital on customers. Sometimes, they disappear because of mergers. Say about what it's like in technology.

Barry Cohen: I mean, if you go back far, you think through it all. I mean, does anybody ever used the word Wang computer anymore, or sun microsearch?

Mike Alkin: No. Digital.

Barry Cohen: No, they don't. In fact, I'm willing to bet depending upon the demographic of your listener base, some of those people have no idea that those companies have even existed.

Mike Alkin: Right.

Barry Cohen: When the PC revolution, there were hundreds of manufacturers of PC. There's not hundreds of manufacturers of PCs anymore. I mean, even if there are, they don't matter, right? They're so small. Nobody even notices they exist, because they're handful. The same thing for printers. The same thing happens with coffee machines. When you think about Xerox, Xerox was the brand name of copying for how well. Even to this day, people might even say, "I'm gonna make a Xerox," but they're doing it on a Toshiba machine, right?

Mike Alkin: Right.

Barry Cohen: What people assume is going to happen. I can guarantee you 10 years from now, we'll look back, and a chunk of that will not be true. I find that fascinating. I find it invigorating. I find it stimulating.

Mike Alkin: Well, what makes the blockchain revolutionary? What makes it bigger than the internet? What is it about it?

Barry Cohen: Well, I mean, it takes a chunk of what the internet is, which is really basically a global communication network, and layers on top of that, the ability to have a record of transactions that nobody can change. It's what they call immutable. Immutable is a fancy word for saying, "Once it's on there, it's always on there." You can't go back, and undo it, so you have this continuous block or chain of blocks of all these transactions, and you can go back. Then some ... A listener might be like, "Well, that sounds great." I'm sure it's fascinating, but what does that do with me?" I'm like, "Okay, well, let me give you an example about this." Let's say you buy a home, and you have the title to it. Generations passed and people don't know where it is, and things get lost in the history with time.

Barry Cohen: If your title for your property, I don't care if it's your home or just a land you own somewhere that nobody knew you own, if that's on the blockchain, nobody can take that from you, or your heirs, or your heirs' heirs, and down the line. While that might not seem like a particular major issue let's say in the United States, there are lots and lots of countries around the world. I do mean a lot, where property ownership is squishy. You'd be surprised. How many people and countries, they will have multi-generations living in a house or connection to a house that's sitting on a plot of land that actually belongs to someone else, that their grandfather worked the land for the guy who own the land, and he gave them the right to build a home for his family?

Barry Cohen: Now, they don't own the land, but they think they do. Three generations down the line, they think that's their house. Maybe the guy who owns the land or his future generations will say, "I'm gonna give you that land," but legally, they don't, and so you can't begin to imagine how big of a deal that is. Even take in our highly, highly evolved economy, the ITO, the intellectual property, it is not easy to actually ensure that your intellectual property is put together the right way, is stored the right way, is cataloged the right way. It is even harder if you're doing a search on intellectual property, whether you're doing mergers and acquisitions, so you wanna know the providence of what you're buying, or you do a development and you wanna make sure you're not stepping on someone else's toes.

Barry Cohen: The last thing you wanna do is come out with a product, and some guy you never met before sues you for a half-a-billion dollars because it turns out you're using something that belongs to him. You can't begin to imagine how hard that is to do even in the United States. What makes it even worse is anybody could basically sue to attach themselves to IP. Then you gotta go through this entire long process of proving your providence to something you know you own. The blockchain will help solve that. I mean, those are little ... That's not like I own bitcoin, and I think, it's going to the 50,000 comments, but from a practical perspective, those are two very real-life thing that this is capable of doing. I'm just trying to imagine what it could do in healthcare. Try to imagine what it could do in banking.

Barry Cohen: Try and imagine what it could do in inventory management or food safety, assuring that what goes from the dirt to your dinner table is known. Just imagine what it's capable. The more you imagine, the more you realize what it can do.

Mike Alkin: Get me smarter on this, and this is where I struggle. I'm so confuse by it all. A couple of years ago when you started talking about blockchain and bitcoin to me, I was like, "Yeah, yeah, yeah." It's been around bitcoin since '08, but you've got these legions of people who are libertarians, some anarchists to believe that blockchain or bitcoin is going to displace money as we know it. No one will have cash anymore. There are these different camps. There is this ... It's a store of value. It's like gold, but then you have this whole evolution of, "Well, it could change the world." To somebody listening, I mean, how do you think about this because I ...? Do you buy bitcoin or Ethereum, or anything else, because they are going to be stores of value, or because the underlying technology has uses that can change the world? How does one think about that?

Barry Cohen: Well, the simple answer is yes to all of them in the sense that it's possible that some of these cryptocurrencies are capable of doing more than one thing at the same time, whereas others are not capable of doing more than one thing. Many of them aren't even capable of doing what they say they're gonna do. I hate to say it really depends, but it really depends. Let's take bitcoin for a second. This is what I'll say to anybody. I'll say it on the phone with you. I'll say it at a bar. I'll say it on the stage. I'll say to anyone. If enough people believe that something has value, then that thing has value. Then it's just a question of price at that point. Like, "I believe value is at $100. I believe value is at $1,000. I believe value is at $10,000."

Barry Cohen: If enough people believe it, then it's sell. I mean, at some point, there were lots of people who believe seashells had value or wampum or tulips, but tulips is a bad example because then everybody goes into the tulip menu thing of cryptocurrencies, which I ...

Mike Alkin: When you said that, I said, "You just walked yourself into a bubble.

Barry Cohen: I know. I walked myself in the bus, and I'm gonna walk myself out by saying right off the bat, I don't subscribe to that view. I'm just gonna let you know, I don't buy into it, and I would be happy to argue anybody about it. The prices might be too high at any point. It might be lower than they should. That's different than tulips. Tulips were a commodity that die several days after they are born. The only value they have is aesthetic. A whole group of people believe that there was something else to them. That's their problem. This is computational power supported by electricity. Those are two that I would say known quantities that have potential value. Once you describe a monetary value to what essentially is a unit of measure, gold for example, it has value.

Barry Cohen: Will bitcoin be a store of value? Yeah, I think, that there is enough evidence to suggest that. When you start talking about a payment's vehicle, you're playing up a couple of ... There's a couple of underlying important issues, which ultimately could get resolved in one way or another. One is what's known as scaling. The other one is cost, and the third is volatility. Let's tackle them in that order, because the first two are relatively easy. I'll actually talk about cost first. Cost is pretty straightforward. How much of the cost do you need to transact? Now, when you go to Starbucks, you take your credit card out. You don't even see that as a consumer, that 2.5% that they charge Visa or MasterCard, or more to the point that Visa and MasterCard charges Starbucks.

Barry Cohen: You're not theoretically paying that out of your pocket. If you bought $10 worth of coffee at Starbucks, you don't get the need to take out your visa or MasterCard or American Express. They don't go, "Oh, I'm gonna put 2.5% tax on top of that to pay for using that." In fact, actually, in the United States, it's illegal to do that. You as the consumer, you don't see that, but it's there. Just like that, there's transaction cost involve in using cryptocurrencies. Mining is an expensive business, and they wanna get paid. They get paid in variety ways, but there's other inherent cost in the system too. Like, if you're on a ...

Mike Alkin: Barry, explain mining for listeners who may not be familiar with it.

Barry Cohen: The 30-second view on mining is that think about rooms filled with computers that are solving complex mathematical equations in order to ensure that the transactions that are going over the network are valid. Once somebody validates those transactions, they essentially win a prize. The prize in this particular case we're talking about bitcoin is getting paid right now, 12.5 bitcoin every time they put a block up. The block will have a certain number of transactions in it depending upon what those transactions are. Mining is basically using computers and a lot of electricity to solve mathematical problems, and then to store all that data once those transactions go up on the chain. That's what mining is.

Mike Alkin: Miners mine bitcoin.

Barry Cohen: Miner mine bitcoin.

Mike Alkin: They solve it to validate it, and they get their payment in bitcoin.

Barry Cohen: That's correct.

Mike Alkin: Now, it's an enormous amount of electricity to drive these powerful computers. Is there a price that a bitcoin miner looks at to where the cost of providing or solving the equation is profitable for them? Is there a bitcoin price that they think about? What is the breakeven for them?

Barry Cohen: There's no real industry standard in the sense that it's not like ... I'm trying to think about it. If you need to buy steel to make something, there's a very open public market for what a ton of steel costs. I mean, you know this.

Mike Alkin: Yup.

Barry Cohen: You could go on to your computer, and anybody could find within seconds a pretty reasonable facsimile what a ton of steel would cost today, and you can look back at what it costs a year ago or 10 years ago, and you could do that. A lot of what goes into mining bitcoin is that's not actually true. It's true about what it costs you to buy some of the equipment, because there's basically too many manufacturers that constitute something that looks like 90% of market share of these which is known as mining rigs, which is really basically a chip, a specialized chip, how it's inside of a unit that has

other processing power and capacity as well as cooling capacity and electrical capacity. It's a very small highly specialized computer. You just wanna think about that, like a desktop computer, but ...

Mike Alkin: Who were those two?

Barry Cohen: The big one is Bitmain. It's got like 70% share. I forgot the other Chinese manufacturer. I didn't have enough coffee this morning. I apologize, but between the two, they have something that constitutes 90% share. Then there's a number of other manufacturers below them, almost all of which are in China. There is some discussion about some of the large U.S. chip manufacturer like Intel or EMT that might get into this, but we haven't really seen anything publicly born out in the marketplace yet. Those costs are fairly knowable. You have a pretty good idea of what those market costs are, but the main, the biggest on an operating basis is electricity. Frankly, the cost of electricity can vary a great deal.

Barry Cohen: I mean, if you're sitting in Kansas, and you try to mine one of those things, the cost of your electricity could be two times the amount of what it costs somebody sitting in Vancouver using hydroelectric. Where people's breakeven is very dependent upon one, the types of machines they're using to mine, because machines that have more computational power can figure out the equations faster, that there's pushing harder and harder against the equations. Then also what it costs you for electricity, and so there's no real standard. I know a couple of miners whose breakeven costs are between $1,300 to $2,000 per coin. If the coin gets below that, they are not making any more money.

Barry Cohen: Now, there are things that they could do. There is things that they could do to maybe manage their business, but I know too that they're at that point. We don't really know. We don't really know what happens. My guess is that some of this stuff gets turned off, because it's just too expensive on the margin. It's like any other mining operations. Just think about what are the conversations you got about uranium. At some point, producers realize that they can't lose $30 a pound, a ton every time they pull a lock out of the ground. The same thing is to be said for bitcoin. There's no point keeping the machine on if you're losing $500 every time you try and do it. That's just not economical. That's mining.

Mike Alkin: You have mining, so people producing it.

Barry Cohen: Right, let's get back to store of value and all of that good stuff that we go through.

Mike Alkin: Yup.

Barry Cohen: We got deep into the weeds, which I don't mind, but I wanna bring us back to the original question. The first one, can it be a store of value? The simple answer is yes, definitely so. It's scaling, cost, and volatility. Scaling is the process by which how fast the network can process transactions. If you just think about it, you have two networks, and one network process 100 transactions every second, and you had another network doing the same type of transactions that it can process is 2,000 transactions. Which one of those networks are better? When people think about this as a payments vehicle, one of the things that you have to consider ... We talked about cost already, which is improving. The other is scalability.

Barry Cohen: How quickly can the network actually process transactions? Oftentimes, a number of the benchmarks that are used are more traditional payment methods, like, visa or MasterCard or American Express, because those networks' so well established, and therefore, if you wanna become an alternative or even supplant the current embedded networks of the payment vehicle, you're gonna have to be able to function at least as good as they do. You're never gonna really, really reach for that brass ring if the best you can do is one-tenth of their speed. It's just not gonna work. There is a number of different developments. Remember, I talked earlier about how people should think about these things as just an ongoing software project.

Barry Cohen: There's a lot of development taking place around improving this functionality if you will. With bitcoin, you have something called the Lightning Network. The Lightning Network is what's known as a side chain. Basically, it sits that you wanna visualize it. You could sit below the bitcoin blockchain, and all the transactions take place at that layer of the network, and therefore, it's a lot faster. Then once you've aggregated and you wanna put it on the network, then you go through the full process of effectively validation and block origination and storage. Now, I've clearly minimized what's taking place in the Lightning Network, but talking about that could take a really long time, and we can go much farther into the weeds.

Barry Cohen: Simplistically, my point is that whether it's Ethereum, whether it's bitcoin, whether it's bitcoin cash, whether it's Litecoin, whether it's any of these blockchain currencies out there that are striving to be a payments mechanism, all of them in one way or another are thinking through and trying to figure out technological solutions to increase that scalability. Then the third thing which frankly, none of these protocols, none of these projects really can do anything about, I mean, some people think they can, and I think, it's misguided, is market volatility. Why is this a problem? You and I, Mike, we've had this discussion several times, but for listeners who may have not thought through this, today, bitcoin is down, I don't know, some place around 10%.

Barry Cohen: If you wanted to buy a cup of coffee yesterday at a $1, $2 worth of coffee yesterday, it would have cost you a certain percentage of the bitcoin. Well, today, you would have to pay 10% more in terms of the number or pieces of bitcoin that you paid for the same $2. Now, normally, when somebody reaches into a wallet, and takes out either cash, which is known as [inaudible 01:00:42], or their credit card, $2 is $2 is $2 every day of the week. It's every day of the week, every month, every years. It's just $2. The only places in the planet where that's not true are hyperinflationary countries like Zimbabwe or Venezuela now, where prices go up astronomically from day to day, right?

Mike Alkin: Yup.

Barry Cohen: Look at what happens inside those economies. Those economies become nonfunctional. They're nonfunctional because you can't have that kind of disturbance inside of a currency unit. It doesn't allow for normal commerce to take place. One of the problems that exist inside of the crypto space at the moment is the inherent volatility of the currencies. Now, there's a lot of reasons for that. There's no, "This is the reason, and therefore, if you know what that reason is, therefore, you can solve it." It doesn't work that way. There's lots and lots of reasons for it to happen, not the list of which is if you wanna think about it, these currency units if you call them currency units, they're really tiny in a scheme of how many U.S. dollars are out there, or how many euro are out there.

Barry Cohen: The ability for volatility to exist inside of a tiny market is really high. It's like a loads of larger numbers in a way. With this theory, over time as the outstanding value of bitcoin or Litecoin, or bitcoin cash or any others that wished to be easy cash, or any that wished

to be payments vehicles, as they get bigger in market capital if you wanna think about it that way, there should be some dampening of the inherent volatility. Now, part of the volatility of course is based also on other things, which is it's a very nascent market. You don't really necessarily know who owns what and why they sell it, and how fast they sell it, and where they come from. They don't have the news flow that's in the marketplace can be.

Barry Cohen: Some, they could be very legitimate and very helpful, but some of it quite frankly is just garbage. People also still struggle with, "Well, how do we value these things, and what underlies them," stuff like that, and then your governmental regulations. One regulator in this area is one way. Another regulator is another way. I mean, even inside the United States, when you take a look at the verbiage that the head of the CFTC, which is it regulate derivatives in the United States versus the FCC, the CFTC language tends to be more pro cryptocurrency. They tend to say, "This is a phenomenal technological change. It's a generational change. We really should embrace it. We really shouldn't move forward, blah, blah, blah, blah, blah."

Barry Cohen: The FCC on the other hand tends to take a more striving view if I could say on this subject matter. They say things like, "All of these are securities, and most of them are securities, which of course send shivers down the spine with an awful lot of people, because I mean, the last thing that you really wanna do is have issues on illegal security." That's a problem, right?

Mike Alkin: Yup.

Barry Cohen: It's the kind of problem, and you and I joked about it. That's the kind of problem where people say orange is the new black, right?

Mike Alkin: Yup.

Barry Cohen: Just like money transmission, if you transmit money illegally without a license that is, that's a real problem. It tends to send shivers down the spine. Then you get news today, where if there was a little news that a relatively small Korean exchange would hack them. The news items are suggesting that $40 million of currency were stolen. Those things don't lend themselves to a sense of security. Since this is, for all intents and purposes, the industry which is striving to provide for lack of a better way of saying this,

financial security to people in a way that they don't have to rely on centralized bodies like banks or governments. When somebody and basically hack into the system, and steal $40 million, it does undermine a little bit the very nature of what the industry is ... It's one of the things the industry is attempted to do.

Barry Cohen: Now, this is not the first time it's happened, and it certainly won't be the last.

Mike Alkin: Is there an SIPC for people? Are they protected if where they're holding their money is hacked into? The answer to that question is basically no. There's one, maybe two exchanges in the United States, where cash at the exchange is segregated, and has protected fraudulent insurance on it, but the actual cryptocurrencies themselves, the answer is no. Now, we have ... '08 bitcoin comes. It's now at, wherever it is, $6,500, $6,700 something like that. It's been as high as $19,000. It's still been a moonshot from just a year-and-a-half or something ago.

Barry Cohen: Two weeks ago, I think, it was almost $8,500. That's how [crosstalk 01:06:22].

Mike Alkin: Yeah, so we've gotten volatility like you were talking about, but now, we've seen this evolution. Now, all of a sudden, we see all of these initial coin offerings, and I lost count. The last time you told me, maybe there is 1,600 of them. This is what our listeners who are ordinary investors, this might be the stuff that they start to get interested in. Could you explain what an ICO is, the evolution of IC, the different types of coins that are out there, and what people are getting for this, and how easy is it to raise money, because it appears to me to be very easy. When something's very easy to raise capital, you're gonna have a lot of fraudsters coming to the space.

Mike Alkin: Walk through people what an ICO is, what's out there, what they need. I mean, how do they think about protecting themselves?

Barry Cohen: Wow, also, always a great question. I keep on saying that you really [crosstalk 01:07:10].

Mike Alkin: To me, if venture capital is the wild west, this is like the frontier of the wild west unless I'm mi mistaken.

Barry Cohen: One of the things that venture capital ... There's a number of things that venture capital has potentially to do really well. That is because of fiduciaries and because they get paid on performance, they

really have it in their best interest to act as the gatekeeper if you will. They're not in business to say yes to all comers. That doesn't mean they don't make mistakes. It just means that they're not in the business to say yes to all comers. The due diligence process as a general rule of thumb within professionals in venture capital an private equity tends to be reasonably arduous. For certain types of projects, I mean, they may start doing embedding of your code. They're certainly gonna ask questions like, "Well, who are these people, and where did they come from? And do they have these [inaudible 01:08:17]?"

Barry Cohen: What does your business model look like? Are you gonna be able to make money? Basic good old-fashioned business questions, which I mean, some people that invest in ICOs ask. Other people just ... I've been on enough chat rooms, Mike, to see how people react to things to tell you that there's a lot of people who take what could be described as investment advice basically by people to say, "No, this is gonna be a hot deal," but they may not even know what it is that they're buying, but all they're getting is the social media buzz, and the buzz is really high, and so therefore, I gotta own some, right?

Mike Alkin: Yup.

Barry Cohen: I think, it's that gatekeeper issue that really is the difference between the professional markets, whether you wanna think about that as the IPO market or the initial public offering, which is for traditional stocks, venture capital and private equity, and the ICO market. The other thing that's different is that venture capital and private equity tend to be what's known as milestone investment. A milestone investment is really actually quite a simple concept, which is you go to a venture capital or a private equity firm, and you say, "Here is our idea." They're just like, "Okay, we like this idea. We wanna invest in this." What are the stages of development?

Barry Cohen: I'm not gonna get into that trying to create an imaginary set of stages with element, but let's say that there are three key stages of development to get your products from concept or beta into that looks like it's actually in the real world, okay?

Mike Alkin: Yup.

Barry Cohen: Now, they will give you some portion of the money that they think that they are going to have to give you in order for you to get from point A to point B. Now, if you get to point B inside the

reasonable timeframe that you've given, obviously, again, art and science. People could see that you've successfully reached what was essentially an agreed upon point B. They will then give you another round, and then to point C, and so on, and blah, blah, blah, blah, blah. That's what's known as milestone investment. What it's designed to do is probably pretty obvious, which is that if we gave you $50 million that they want, that doesn't necessarily align everybody's interest the same way. It might turn out that you didn't need $50 million.

Barry Cohen: Maybe you only needed $25 million to get you from point A to point C, or maybe you even needed more. You're not gonna know that until you're in the process. Now, ICOs, there's milestones in the sense that legitimate ICOs will put out a roadmap if you will to what is it that they intend to accomplish, and over something that looks like a time frame that people can keep tabs with that. Now, many of them don't really make a lot of announcements along the way, which is another subject matter. Communication is another subject matter, but I don't wanna get too far foot. What really separates ICOs from let's say traditional VC and PE is that you go out, and you raise the money, and it's kind of all or nothing thing.

Barry Cohen: You either raise a certain amount of money, and you're up and running, and you're viable and you don't have enough cash in your hands, so you don't. It's very different. It's just a different financing mechanism in that respect. The other is of course, your rights as an investor are different. Many of these things aren't really equity. You don't really own equity. You own what's known as utility. We can talk about that in a second, because ICOs delve into the different types of coins, so we'll get there in a second. You don't really own an underlying ownership of any kind. Forget partial. Forget anything, zero. You own utility. The biggest utility that's commonly sold frankly is, and it's one of the few things that all of these coins have in common, is that if you won a coin, that imparts to you a certain right.

Barry Cohen: That one right that all of these coins impart, and I do think all of them impart it is the right to participate on the platform. If you own a coin and the platform sells a product or service, there's something along those lines. Owning that coin imparts to you the right to use that service on that platform. That is probably the singular underlying characteristic of all ICOs that exist. After that, it's a hodge podge. Investors can think about the cryptocurrency market

in a lot of different ways. You can break it apart in a lot of different ways, but I wanna break it apart in a really simple way, and say that there are basically three types of coins that are out there.

Barry Cohen: The first type of coin, we talked a little bit earlier. Those tend to be more like platform and protocol coins, and so those would be your bitcoins and your litecoins, and your Ethereums, and your Z cash, and Stellar, and coins along those lines. As a general rule, those coins tend to be from the largest coins in terms of market cap in the marketplace on an individual and also collective basis. There's very, very few utility coins that are bigger than the major protocols. Then you would have this enormous, and I do men enormous, subset known as utility coins. I haven't done an actual statistical study on this, but I'm just gonna give you my interpretation.

Barry Cohen: If you look at that, it's purely not from the market perspective, but like the number of publicly traded coin. I would venture to say that 90% of the coins out there maybe is greater to fall right now into the category of utility. Utility coins as we spoke off earlier really imparts on you one very singular right as an owner, which is to use that coin to participate in one way or another on that project's platform. Now, that might be your ability to pay for things. That might simply be your way to actually even just enter the platform. You might have voting rights, but let's make something up. Let's say that you're a charity, and you've issued coins to raise money as a charity.

Barry Cohen: Perhaps, if you own those coins, and each one of those coins represents a vote, you as a community might vote on the charitable projects that you wanna see money going to, right?

Mike Alkin: Yeah.

Barry Cohen: Those constitutes a very, very large line of share of the market, again, not a statistical study, so I don't wanna be held to it, but I would venture to say that on short numbers basis, there are probably 90% of the coins that are out there. Now, those business models for lack of a better way of putting it are often untested. The economics and how those tokens work inside of those projects are mostly untested. The reason why I say that is that the bulk of projects that are out here today are still in development. There's nothing wrong with that. I don't want people to go, "Oh, well, if you think there's something wrong with the fact that these guys are working really hard to do what they said, not at all." That's not at all what I'm saying.

Barry Cohen: What I'm saying is that from the user perspective, a lot of these projects aren't up and running. You're not gonna really know until they are up and running to really important things. One is does it work, and does anybody wanna use it? B, if you use the token on it, does it really work? Not that the token really worked, but does the business model really allow for it? What does that mean? If I was a listener, I'd be like, "That's really interesting, but what is it really saying?" Let me give you an example of what I'm talking about if that's okay. Is that okay?

Mike Alkin: Sure. Of course.

Barry Cohen: Let's say you have a project, and everybody loves the project. It is incredibly exciting. It's a huge market that they're going after. There's real problems in the market that they think they can solve. Phenomenal teams, wonderful, and you own the coin. They say to you that, "Let me get this project up and running." You're gonna have to use the coin to pay for whatever those particular services that were imagining right now, okay? Let's imagine that you're gonna rent storage space. I often think about like this storage space. Everybody loves the coin. Here is the conundrum. First, you have to buy the coin, so you have to go through the process of buying the coin, which in and of itself for a lot of people is not always particularly easy, especially if you're first or new to cryptocurrency, you have to move your money from the bank into a crypto exchange.

Barry Cohen: You have to go on a crypto exchange. You have to buy that particular coin. You have to store the coin. You have to have enough of the coin to use on the project, and because of that volatility we spoke of earlier, you wanna have a little bit of a cushion because you just don't know. You don't know. You don't know. Then you have to transfer that coin onto the project in order to use it. Also, if you're in the United States, and you do that, along the way, you, believe it or not, are actually triggering taxable events. Not only are you spending money on the project using your coin, but if you bought the coin with a dollar, and you sold the coin at $2 to buy the products, you now created a taxable events, so there's tax on that.

Barry Cohen: Now, there is some legislation in congress for allowing transactions underneath the value of [inaudible 01:18:31] $600 not to be taxed, but that hasn't gone through yet. Right now, as things stand in the United States and in other countries, using coins actually cost you money on top of what you're buying. That's a little bit of problem, but they're working it out. The other problem is something far, far

more fundamental. Let's say you have two guys. Let's just say you have one guy. Let's make it simple. They love the coin. They can't get enough of it. They own it because they think it is the greatest project on the history of coin, and the coin keeps on going up and back. Now, think about the psychology of investors.

Barry Cohen: The coin is going up in value. This coin is very valuable to you as an owner. If too many people hoard those coins, speculators as investors, and therefore, choose not to use that coin. There's an unwillingness to essentially give up those tokens, because of the speculative value that they think they're gonna make on them. How do you pay for things on this platform? Now, some platforms will let you pay for things using cash and other payment vehicles. If it's a product or service that's like ... They happen to be a blockchain company, but they happened to be a business also. A lot of these are based on creating utility on a notion that this coin is going to be the sole payment vehicle in there.

Barry Cohen: Now, some of them have been smart enough to set up preserves in order to facilitate this, but not everybody have. Just take it to the next logical conclusion. If everybody holds on to their coin because of the speculative nature of it, because they don't wanna give up that next move up, because the project is just so amazing, but nobody is actually using that coin to actually buy anything on the project. There is a tipping point, an excellent point where people realize that you can't buy anything on the project, because nobody is giving up their coins. The coins lose their value, because there's no utility function there.

Barry Cohen: When I say that some of these things have not really yet proven themselves out, it's not because I'm a doubter. It's not because I'm a negative or a naysayer. It's not that I don't believe that there aren't a number of these that are really well thought out and well designed. It's just that it hasn't improved out yet.

Mike Alkin: Barry, if you're going through the initial public offering process if you're an equity, you have to file a prospectus with the SCC, and they look at it, and they go back and forth with comments. They again validate that the business will be a success, but they can validate that, or try to validate the SCC. What's in there is a fair representation of what the business represents-

Barry Cohen: That's correct.

Mike Alkin: … and that the financial statements are in accordance with gap because they were audited by an auditor. Again, they can't prove those are accurate, but there is a process in place. An ICO that comes out could be a 10, 15, 20-page white paper written by a bunch of folks who have an idea. What process does that go through for potential investors to say at least there is some legitimacy to this enterprise.

Barry Cohen: Well, the market is evolving. I mean, that's the true answer. The market is evolving. What you could do a year-and-a-half ago versus what you could do today aren't necessarily the same thing. Law firms, especially the good ones, they are very, very sensitive to the legitimacy factors around an offering. Now, I'm not telling you that there aren't coins that are coming out there that haven't been necessarily vetted. That's the last thing I'm gonna say, but good projects are leaning towards using lawyers that really are quite strident about going through the makeup of the business model, how they are legally structured.

Barry Cohen: The team have you thought through the direction where you wanna take the business. Is that reasonable? Have you thought about your budgets at all? Not everything has to be nailed down to the pennies. That's not what it is, but just have you even thought of it? I mean, I've been on a couple due diligence calls on a few of these things. They haven't even thought through their revenue model yet. Here is the problem. We're gonna solve it. Okay, well, that's great. Well, do you plan on making money? Well, we're not sure how we're gonna do this, so oh okay. Well, maybe you might wanna think about that.

Mike Alkin: When somebody buys into an ICO, they buy an ICO, and it's for, I don't know, catnip. I'm making it up, whatever it is. Are they buying the ICO for the speculative nature that you start to get momentum in the awareness of this company, and the purpose that they serve, and that the coin is going to increase in value based upon the speculation, or are investors buying the coin because they believe the underlying business fundamentals? This is where I as an equity and debt analyst try to understand. Is it based upon the fundamentals that are going to start to become generated, and whether or not they generate cash or not, I understand early stage venture. It's about growth and getting that growth.

Mike Alkin: What mechanism is in place for these ICOs to communicate their economic progress?? Is it quarterly? Is it half year? Who's mandating that? Why is somebody buying into this, because of the

underlying business, or because they think it's gonna be a good story, and there's gonna be a speculative nature that's gonna cost feeding frenzy?

Barry Cohen: Honestly, I think, the answer to that question is yes to all of the above. Different buyers fulfill different feel differently. The same buyer who believes in the project also might be reasonably excited by the fact that this might be a hot field. I mean, unless you're an aesthetic, it's really hard to divorce yourself from the concept of monetary gain. Even if you're a diehard believer in the project, I mean, my guess is that you'll be happy that the $500 that you've put in to buy this on day one is now worth $1,000. Of course, I'm making that up, right? I'm not at all suggesting those kinds of rate of return, or even bigger ones. I'm just using it as a point.

Barry Cohen: Very few people I know, and I'd like to meet them, would actually be annoyed at the idea that they put $500 on something that's not worth $1,000. I'd like to know that person. I think, it's both, but to be fair, there's a lot on the extreme side where people are constantly talking about how this coin is gonna be a 100 bagger, a 10 bagger, whatever bagger it is, which is fine. There's nothing wrong with speculating on your speculation, but there is a lot of that in the marketplace. How and where that speculation comes from is also really sometimes questionable. If you have an individual, and this is what they believe, and here is the three reasons why they believe it, that's fine, but you have a lot of people out there whose self-interest aren't necessarily over the line with the general investing public, and who may in fact actually even be paid to propagate information in order to jam the price of the coin higher after it gets into the public market.

Barry Cohen: I'm not talking about being paid by the project. There are from what I've heard, I've never met any of this people, but I've heard about investors paying other people to do that in order to facilitate speculative frenzy, so there's all mannered stuff. Now, again, and this is when the FCC starts to say, "So, we have to step in because our primary mandate is investor protection." I mean, first and foremost, that's what it is, and because there's a lot of this stuff that takes place in this market, because it's global and it's relatively unregulated, and what regulations exist are a hodge podge, and even inside this same country, those regulations have been slow and often can be in contradictory.

Barry Cohen: Since they are not characterized as a security, while it's illegal to engage in what's known as a pump and dump scheme no matter what, security laws are very, very different than normal commercial laws. The idea is insider trading. The idea of inside of sales without acknowledgment. That is basically unregulated. Now, the industry has tried to create some back stops to that, so what you and I would call insiders, which in this industry is known as founders. Often, we'll get some piece of the underlying coinage that's being issued being issued. That's a great deal. I've seen all manner. I've seen close to zero to as much as 50%. It depends on the project. It depends on a lot of things. Those coins typically have a dusting schedule, and that dusting schedule is made public. Those coins are held in a smart contract that is if you're legitimate, it's publicly viewable.

Barry Cohen: Therefore, outsiders can validate that insiders have been sold the 10% of the coins that they're getting two months after it's now gone on some big exchange, and everybody's super excited. They haven't liquidated. There is some self-policing, but you got to remember, that doesn't mean that everybody does it. It's a good thing if you do it. It's becoming more and more the standard if you will. It's not an enforced standard. It's more of a social enforced standard. It's like when you go to a party, it's not a really good idea to start making fun of the hostesses' taste in furniture. As a social standard, that's considered to be not a good thing. There is no law that precludes you've been doing that, but people just don't.

Barry Cohen: A lot of what this industry is about is really in some ways predicated on a moral suasion. If you are an economist, you would use that word, moral suasion. In this particular case, you would probably call it like social suasion.

Mike Alkin: Now, we've talked about utility tokens. We've talked about the features, benefits.

Barry Cohen: Protocol, and so the last one is, I think, going to be ultimately the biggest.

Mike Alkin: This is Mark ...

Barry Cohen: It's gonna be security tokens.

Mike Alkin: Mark's gonna be very excited about those too. Can we dive into those?

Barry Cohen: Yes. That would be the third out of the three of breaking down this market. Security tokens are relatively nascent. Again, I've used that word a couple of times in this. As a sheer number that are currently outstanding, they're relatively small. Arguably, probably, not much bigger on a percentage basis than like a lot of the protocol coins. Maybe a little bit, but not a ton. The simplest way to think about security tokens is that at the end of the day, they're really like an investment contract. In one way or another, these are registered tokens versus unregistered. They will impart to you things that often will look or feel like traditional equity or debt.

Barry Cohen: Now, there are twists and turns, so it's not exactly like a stock, and it's not exactly like a piece of debt, but they are attempting to impart to you through what could be described as an investment contract, some form of ownership that comes with some additional rights. Now, those rights may be the rights to the long-term capital appreciation of whatever those security tokens represent. Let's say real estate or dividends potentially. Again, not necessarily having to be paid, but if they were, and people said that they were going to pay dividends, when they are paid, if you own the coin, you are entitled to it.

Barry Cohen: Some people are trying to figure out how to tokenize debt itself. There's been some small private attempts to that. There's been a couple of transactions that have taken place, but they haven't been public transactions. These are like behind the scenes, closed doors kind of things. I don't even know if we're in the first thing in anyway of this. I think, everybody's stretching on the field right now, and all the spectators are getting beers and hotdogs, and their kids cotton candy. I mean, that's how early and mundane they are, but I think, it's gonna be massive. I think, this is gonna be massive.

Mike Alkin: Walk me through what are they, and why?

Barry Cohen: You can design a lot of things around the token that you might not be able to design about a traditional investment. You can create business model designs or security value designs that are different. I think that those are really interesting. That's a long subject matter, but I'm just gonna throw it out there. The cost to come to market is lower. There's a lot of frictional costs that comes out of the system, which is great. That's frictional cost. You gotta remember, that's frictional cost one way or another. It's a burden that both the company and therefore the people who may own some elements of the capital structure within that company bare.

Barry Cohen: Like every dollar that you spend on Goldman Sachs or Morgan Stanley, I'm not picking on them, any investment bank to underwrite you, whether it's debt or equity, those are dollars by definition that are not going into the company. I don't care if it's 1% or it's 7%. That's money that's not going into your hand. Some people might say, "Well, really, Barry, that's ... I mean, if somebody is doing a security token for a company, and they wanna raise $40 million, are you telling me that that $3 million is the difference?" I'm not trying to say that. I mean, to that company, it's a lot of money. To that company, it's a lot of money. You're right, $3 million in the scheme of the size of the universe is not a lot of money.

Barry Cohen: Now, take that offering, and start multiplying it by all the offerings that are done. It's very easy to get caught up in the minutia of, "It's not a lot of money in this field. It's not a lot of money in this field." I mean, you could say the same thing about that Wall Street in general, "Not a lot of money in that field. It's not a lot of money ..." The next thing you know, it's a lot of money, right?

Mike Alkin: Yup.

Barry Cohen: There's a lot of friction costs that can be taken out of this system. On top of that, there is time. To go from a private company to a publicly traded company as a general rule is longer than what it's gonna take you to do an offering, a security token offering in the cryptocurrency space, so there's time to market, which is great, right?

Mike Alkin: Yup.

Barry Cohen: I mean, people who have never been through the process, you've been through the process, I've been through the process, can't really imagine what that's like on a day to day basis. All the time, instead of doing what you should be doing or wanna be doing, or need to be doing because of what you do, you have tremendous amount of hours that go into just walking down the aisle to get a deal done. I mean, it's a lot of work anyway during an ICO. Don't get me wrong, but it's nowhere near what we're talking about here. There is that. People who have never done it might just brush that aside, but it matters. There's also the immutability of your ownership. Nobody can really take it away from you, because it's on the blockchain.

Barry Cohen: Again, places like America or if you're sitting in London, or someplace like that, maybe that's not something you think about, but there's a lot of places in this world where confiscation of assets is no small matter, and there's a lot of money out there that is looking for ways of ensuring that they have liquidity with high value assets behind it that could overtime both appreciate and pay cashflow. I mean, there's a lot of people out there. I'm not talking about some Banana Republic. There are some very notable and very large countries in the world with an awful lot of wealth, where people are … That's very important for them.

Barry Cohen: That's also a real bit positive. Plus, these things are traded, so therefore, you could see them. I mean, if anybody has ever owned a bond, when they get their monthly statement from Schwab or whatever it is that there is a brokerage account is, I mean, they put a price on them, but they don't really trade. If you own corporate bonds, they don't really trade, but there's a price, but they don't really trade. These things trade. These things trade. You can actually own something that more or less looks like a bond or a cash flowing instrument. That actually will trade more like a stock than it does a bond. That liquidity preference or the potential for liquidity preference, that's enormous.

Barry Cohen: Go talk to a fixed income guy, and ask him how easy it is to sell $50 million of a corporate bond issuance, and you'll understand what I'm talking about. It's that easy.

Mike Alkin: Is real estate one of these things?

Barry Cohen: Real estate is top of mind on one of these things. I mean, you have huge embedded value. You have functionally a friction costs that are embedded in the real estate system itself between issuance and capital raise to simply brokerage and legal. There's enormous amount of capacities there. A lot of real estate isn't available for the public to own. It's either not traded in a vehicle that will let them own it, or they don't really have the easy access to it. I mean, New York City is a great example. If you're worth a half a billion dollars, you can buy a $20 million apartment in the Time Warner Building if you're inclined to do so, but there's a lot of reasonably well-off people who are looking to diversify, to have liquidity, to have access to really what quintessentially one of the world's best and biggest in those deepest global real estate markets.

Barry Cohen: It's not easy if you live in Singapore, or Korea, or China, or for that matter, Switzerland or the UK. It's really hard to buy a property in other places. This will become a global phenomenon. You will be able to own pieces of property in countries that you've maybe never visited or can't visit, or can't buy. It's gonna be tremendous, Mike. It's just gonna be astronomically large. The real estate market like so many of other markets is stodgy. It's stodgy. They're not even on top of this. You and I both know this from some conversations we've had about other things. I'm going to back, there's a lot of people in the real estate market who has no idea that any of these is happening. They're not even gonna know how to react when it does start to happen.

Barry Cohen: They're gonna be like, "What does this all mean?" There is an enormous value to first movers who really understand how powerful this is. Personally, I think, it's gonna be just astronomically large, and I think, it's gonna be a global phenomenon.

Mike Alkin: Interesting. All right, listen, we are out of time. This has been really, really ... No, I mean, it's been very fascinating for me to learn about speculation versus investing in business concepts, and the utility tokens and the security tokens. It was great. I appreciate it. You just launched with Frank, right?

Barry Cohen: Yes, it is, Crypto Intelligence.

Mike Alkin: Crypto Intelligence. What is that all about?

Barry Cohen: Well, it's a monthly newsletter that's going to dive into the cryptocurrency market, and so it'll be educational. We've already put out a bunch of videos that are available to people. We are in the process of putting out what they call a book or a primer. In the investment industry, you would call it a primer. Then monthly, you're going to get a newsletter that talks about what's going on in the market maybe, or an issue that you need to be aware of, or something that might not be great, but also ideas that we think are attractive. Whatever those reasons are, each idea will have its own merit, and we'll be delivering that to subscribers. That's in a nutshell really the whole genesis behind the newsletter.

Mike Alkin: Great! All right, Barry Cohen ...

Barry Cohen: [Crosstalk 01:42:10] help people, and they make money.

Mike Alkin: Great! All right, man, thanks buddy.

Barry Cohen: Thank you, Mike. I really appreciate it. Thanks everybody for listening.

Mike Alkin: Well, I just took you along a little journey with me and Barry Cohen. Like I said earlier, I have not ignored, but I've just been focused on other things, and I haven't spent too much time for this asset class. That's some really smart people I know, whether Mark Yusko, Barry Cohen are really very excited about. I decided I wanted to get a little bit up to speed now. In honesty, I'm not gonna get too up speed for myself, because when I have a question, I'm gonna call them, but not everyone is gonna have access to them, but I'm gonna start to get smarter on it, and just I think, anything that just pop.

Mike Alkin: I hate being ignorant, and I always start in a field ignorant. Hopefully, this enlightened you a little bit. I hope you have found some value in it. I will be back next week. Next week, we are going to be talking uranium. Thanks, have a good week, and I appreciate you listening. Take care.

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